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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,312

04/26/2007

Ralf Dunkel

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03/16/2009

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EXAMINER

FIERRO, ALICIA

ART UNIT

PAPER NUMBER

4121

MAIL DATE

DELIVERY MODE

03/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,312	<b>Applicant(s)</b> DUNKEL ET AL.	
	<b>Examiner</b> ALICIA L. FIERRO	<b>Art Unit</b> 4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/23/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 5-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/28/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-8 are pending in the instant application, filed April 26, 2007.

### ***Priority***

2. The instant application is a national stage entry of PCT/EP2004/013834, filed December 6, 2004, which claims priority to: German Patent Application No. 103-59-511.2, filed December 18, 2003; German Patent Application No. 10-2004-004-141.5, filed January 28, 2004; and German Patent Application No. 10-2004-005-317.0, filed February 4, 2004. It is noted that although certified copies of these priority documents have been received, the documents have not been considered as English language translations have not been provided.

### ***Information Disclosure Statement***

3. The information disclosure statement submitted on March 28, 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed be submitted to the office. It has been placed in the application file, but the references which are crossed out in the signed copy of the 1449 form (FP1, FP3, FP4, and FP5) have not been considered due to the fact that they have not been provided in English.

### ***Election/Restrictions***

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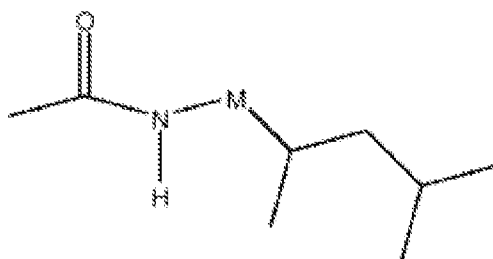
4. Applicant's election with traverse of Group I, Claims 1-2 and 4 in the reply filed on February 23, 2009, as well as an election of the species *N*-{2-[(1*S*)-1,3-dimethylbutyl]phenyl}-5-fluoro-1,3-dimethyl-1*H*-pyrazole-4-carboxamide is acknowledged. The traversal is on the ground(s) that Groups I and IX (drawn to claims 1, 2, and 4- compounds of formula I wherein M is M-1 and A is A1 or A3 and claims 5-6 – a method of using compounds of formula (I) wherein M is M-1 and A is A1 or A3, respectively) are not lacking unity because they are related as products and processes for using such products. This is not found persuasive for the following reasons:

An international application should relate to only one invention or, if there is more than one invention, the inclusion of those inventions in one international application is only permitted if all inventions are so linked as to form a single general inventive concept (PCT Rule 13.1). In the instant case, more than one invention is claimed. With respect to a group of inventions claimed in an international application, unity of invention exists **only** when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding **special technical features**.

The claims herein lack unity of invention under PCT rule 13.1 and 13.2 since, under 37 CFR 1.475(a):

Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Groups I and IX (as well as all groups set forth in the original restriction requirement) are lacking unity of invention under 37 CFR 1.475. The technical feature corresponding to the claims is shown below:



This is the core technical feature because it is the only core that is common to all compounds of formula (I). Note that although the structure of M varies, it was included in the core by the Examiner because it joins two essential non-variable components of the core. The presence of a common structural element is noted. However, the common structural element does not constitute a special technical feature because it fails to define a contribution over the prior art as can be seen in DE 102 29 595 A1, which discloses the same core as in instant Claim 1.

Therefore, claims 1-2 and 4-6, which make up Groups I and IX, (as well as the entirety of the claims in the instant application) are not so linked as to form a single general inventive concept and there is a lack of unity of invention because they lack a special technical feature as the technical feature present fails to define a contribution over the prior art. The core technical feature that is being claimed is taught by the prior art. Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper.

Therefore, since the claims do not relate to a single general inventive concept under PCT

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Rule 13.1 and lack the same or corresponding special technical feature, the claims lack unity of invention.

The requirement is still deemed proper and is therefore made **FINAL**.

4. Claims 3 and 5-8 are withdrawn as being drawn to non-elected subject matter.

MPEP § 803.02 provides guidelines for election of species in Markush-type claims. These guidelines were followed for the search and examination detailed herein. The elected species was not found to be allowable (Sections 5-9). Therefore, the Markush-type claims were rejected and the subject matter drawn to nonelected species held withdrawn from further consideration. Claims 1-2 and 4 were further examined, pursuant to MPEP § 803.02, to the extent necessary to determine patentability. The search was limited to the elected species. It has been determined that the entire scope claimed is not patentable.

### ***Claim Rejections - 35 USC § 112***

#### ***(First Paragraph)***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 4 is rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the instant case, the claims are drawn to an agent for the control of "detrimental microorganisms" which contains at least one compound of structure (I) and additional diluents and/or surfactants. Applicants describe no "detrimental microorganisms" other than mentioning in the specification that "the compounds of the invention exhibit high microbicidal activity and can be used for the control of detrimental microorganisms such as fungi and bacteria..." and listing a number of genii for different fungal and bacterial pathogens encompassed by the instant claims (¶ [0165]-[0198]). While firm support is provided for agents of compounds of structure (I) to treat **specific** fungal infenctions in plants (namely *Sphaerotheca fuliginea*, *Venturia inaequalis*, and *Botrytis cinera*), no compounds of the invention were tested against any bacteria, amoebae, protozoa, or any other microorganism enocompassed by the instant claim. As such, the claims lack adequate written description for use against the myriad of organisms embraced by the claimed "detrimental microorganisms."

The description requirement of the patent statue requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736, F.2d 1516, 1521, 222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate.") Accordingly, it is deemed that the specification fails to provide adequate written description for the genus of the claims and does not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the entire scope of the claimed invention.

***Claim Rejections - 35 USC § 112***

***(Second Paragraph)***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In describing components of the agent, Applicant uses the term “and/or” referring to the presence of the diluents and surfactants in the agent. It is unclear whether Applicant intends to claim only agents which have a diluent **and** a surfactant or if an agent containing either a diluent **or** a surfactant would meet the limitations of the claim. For the purposes of applying art, the Examiner will interpret the claim as reading on an agent that contains either at least one diluent or at least one surfactant.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the limitation “detrimental” does not make clear specifically which microorganisms Applicants intend to encompass in the claim.

***Claim Rejections – 35 USC § 102/103***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -



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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Elbe et al. in WO 03/010149 A1, which has

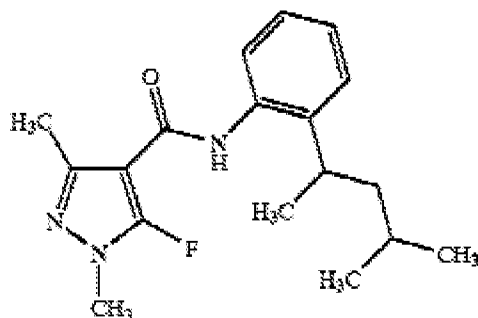
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a publication date of February 6, 2003 and was cited by Applicant on the IDS, as evidenced by "Control," Merriam-Webster; "Diluent" Terms of Environment: Glossary, Abbreviations and Acronyms. U.S. Environmental Protection Agency; and "Surfactant" Merriam-Webster, in view of Garrison et al. For ease of examination, the Examiner relied upon US PGPub 2004/0204470 A1 as an equivalent English translation of the German WO 03/010149 publication. All citations henceforth to Elbe et al. are locations in the US PGPub.

Please note that for the purposes of applying art to claim 4, the phrase "for the control of detrimental microorganisms" is considered to be intended use and is not limiting to the claimed invention or significant to the claim construction. See MPEP 2111.02(II). However, in determining whether or not the prior art would be capable of the intended use, as claimed, it is necessary to examine the meanings of "control," "diluent," and "surfactant" in claim 4. Because no specific definitions were set forth in the instant specification, definitions consistent with the art have been applied. Merriam-Webster defines "control" as "to reduce the incidence or severity of especially to innocuous levels" (<http://www.merriam-webster.com/dictionary/control>). Thus, anything which would reduce the incidence of (i.e. kill) detrimental microorganisms would be capable of the intended use in claim 4. Additionally, in the absence of a particular definition for "diluent," a diluent will be taken to mean "any liquid or solid material used to dilute or carry an active ingredient" (<http://www.epa.gov/OCEPATERMS/dterms.html>); and a surfactant will be taken as any surface active substance (<http://www.merriam-webster.com/dictionary/surfactant>).

Elbe et al. teach the following compound as a specific example of a compound general formula (I) (see Example I-21 on page 20, column 2 of the publication):

I-21



The compound taught by Elbe et al. is identical to the instantly elected species with the only difference being that the compound prepared in the '149 publication does not specify the (S) stereochemistry around the C<sub>1</sub> position on the butyl chain. The reference also explains that the compounds of the invention may be present in mixtures containing different stereoisomers, and in particular, different optical isomers (P [0011]). One of ordinary skill in the art would recognize that the C<sub>1</sub> position on the butyl chain is the only chiral center on the molecule and that the language regarding the different optical isomers would necessarily refer to the (R) and (S) stereoisomers of the instantly claimed compound. Additionally, Elbe et al. in '149 do not use a stereospecific method of producing compound I-21, nor do they provide any examples in which individual enantiomers are isolated. Thus, absent evidence of the contrary, it is inherent that mixtures containing the above compound, which they produced as their invention, would contain molecules of both the (R) and the (S) enantiomers of the compound above, thus encompassing the instantly elected (S) isomer compound.

Elbe et al. also teach the formulation of a mixture of the above compound (see Example C, page 28, columns 1-2). The compound was dissolved in N,N-dimethylformamide (a diluent) and alkylaryl polyglycol ether was added as an emulsifier. The agent formed by Elbe et al. would be able to perform the intended use in the instant application based on specific teachings

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in Example C. The agent was applied to tomato plants which were thereafter inoculated with *Alternaria solani* spores. *A. solani* is a fungal pathogen which is detrimental to tomato plants (Rueda et al. "Early Blight of Tomatoes" 1995). The agent formulated from the above compound was found to be 100% effective over a period of seven days in that no infection was observed at the end of the seven day period (see Table C). Thus, the compound and agent taught by Elbe et al. in WO 03/010149 meets all limitations of instant claims 1, 2, and 4 as they pertain to the instantly elected species.

It is noted that Elbe et al. does not specifically discuss or provide examples of the production of the (S) enantiomer of the instantly claimed compound. However, Lange et al. do disclose that mixtures of the compounds contain both stereoisomers. Garrison et al. discloses that "enantiomers have identical physical and chemical properties except when they interact with enzymes or with other chiral molecules" and further that the enantioselectivity of pesticide compounds "results in different rates of microbial transformation and differences in activity and toxicity of the two enantiomers" (paragraph 2, lines 1-3). They give the example of the herbicide dichlorprop, in which the (R)-(+ ) enantiomer is active while the (S)-(- ) is inactive. One of ordinary skill in the art would recognize that the C<sub>1</sub> position on the butyl chain is the only chiral center on the molecule and would be able to use conventional methods known in the art (such as GC, CE, or HPLC, as recited by Garrison et al. under "Some Results") to produce the (R) and (S) optical isomers of the instantly claimed compound. With this in mind, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to isolate both optically active isomers from a mixture of the compounds produced by Elbe et al. with the motivation of determining which has more desirable pesticidal effects. Thus, there would have

been *prima facie* obvious for one of skill in the art to be motivated to combine the Elbe et al. and Garrison references to produce the instantly claimed compound with reasonable likelihood of success.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

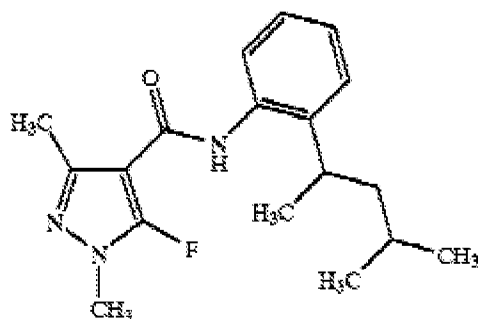
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-2 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-28, 31-33, 35 and 46 of copending U.S. Application No. 10/484,108, in view of Garrison et al. "Mirror Images - Chiral Chemistry: the ultimate in pollutant speciation," 2003). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons below.

The recited claims of the '108 application are drawn to various generic compounds of Formula I. Additionally, a preferred embodiment in the specification of the '108 application recites the same formula as the elected species in the instant claims.

Fig. 21



The compound taught by Elbe et al. is identical to the instantly elected species with the only difference being that the compound prepared in the '108 application does not specify the (S) stereochemistry around the C<sub>1</sub> position on the butyl chain. Garrison et al. discloses that "enantiomers have identical physical and chemical properties except when they interact with

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enzymes or with other chiral molecules” and further that the enantioselectivity of pesticide compounds “results in different rates of microbial transformation and differences in activity and toxicity of the two enantiomers” (paragraph 2, lines 1-3). They give the example of the herbicide dichlorprop, in which the (R)-(+ ) enantiomer is active while the (S)-(-) is inactive. One of ordinary skill in the art would recognize that the C<sub>1</sub> position on the butyl chain is the only chiral center on the molecule and would be able to use conventional methods known in the art (such as GC, CE, or HPLC, as recited by Garrison et al. under “Some Results”) to produce the (R) and (S) optical isomers of the instantly claimed compound. Thus, one of ordinary skill in the art would have had *prima facie* motivation at the time the invention was made to enantiomerically purify the pesticidal compound taught by Elbe et al. in order to change the activity/toxicity of the compound, as disclosed by Garrison et al. Thus, the instant claims are *prima facie* obvious over the claims of copending application 10/484,108.

10. Claims 1-2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-17 and 20 of copending U.S. Application No. 10/576,050. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejection based the obvious motivation to enantiomerically purify the compounds of the '050 application. Additionally, the copending claims are drawn to obvious variants of the instantly claimed genus, as the amide group of the copending claims cannot be bound to hydrogen.

However, many preferred embodiments in the specification of the '050 application have a methyl

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group bound to the amide nitrogen instead (See examples 3-5, Table 1, page 28 of specification). Hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the amide N is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would be useful in the control of microorganism species). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make compounds in the instantly claimed genus by modifying a methyl to a hydrogen on the amide N of the compounds claimed in the '050 application.

11. Claims 1-2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 and 9 of U.S. Patent No. 7358214. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on the obvious motivation to enantiomerically purify the compounds of the '214 patent.

12. Claims 1-2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-15 and 17 of copending U.S. Application No. 10/576,153. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above



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rejections based on the obvious motivation to enantiomerically purify the compounds of the '153 application.

13. Claims 1-2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-26 and 28 of copending U.S. Application No. 10/576,060. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on the obvious motivation to enantiomerically purify the compounds of the '060 application.

14. Claims 1-2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4 of copending U.S. Application No. 10/597,723. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on the obvious motivation to enantiomerically purify the compounds of the '153 application. Additionally, the '723 application requires that the R<sup>3</sup> group is substituted by a halogen. In the case where the halogen is fluorine, the compounds of the '723 application are deemed to be obvious variants of the instantly claimed compounds. H and F are known to be bioisosteric substitutions, which are well known in the art. See Patani et al., *Chem Rev.*, 1996, 96, 3147-76, especially page 3149. One of ordinary skill in the chemical art would have had

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*prima facie* obvious motivation at the time the invention was made to make the instantly claimed compounds because of the expectation that structurally similar, isosteric compounds would possess similar activity (i.e. they would be useful as microbicides).

15. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-22, 24-28 and 30 of copending U.S. Application No. 10/576,243. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on the obvious motivation to enantiomerically purify the compounds of the '243 application.

### ***Conclusion***

16. No claims are allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALICIA L. FIERRO whose telephone number is (571)270-7683. The examiner can normally be reached on Monday - Thursday 6:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on (571)272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AF

/Patrick J. Nolan/  
Supervisory Patent Examiner, Art Unit 4121